What is claimed:

1. A method for use in noninvasively monitoring a physiological parameter of a patient, comprising the steps of:

obtaining a photoplethysmographic ("pleth") signal that is modulated based on interaction of a transmitted optical signal with blood of said patient, wherein said pleth signal includes at least a first component associated with the operation of the patient's respiratory system and a second component associated with the patient's autonomic nervous system;

processing said pleth signal relative to said first and second components to distinguish an effect associated with one of said first and second components from an effect associated with the other of said components; and

using said distinguished effect to monitor said physiological parameter.

2. A method as set forth in Claim 1, wherein said first component relates to the patient's respiratory sinus arrhythmia.

3. A method as set forth in Claim 1, wherein said second component relates to a Mayer Wave of said patient.

4. A method as set forth in Claim 1, wherein said step of obtaining comprises the substeps of:

providing at least one source for transmitting an optical signal;

operating said at least one source to transmit said optical signal relative to said patient such that said signal interacts with said blood of said patient;

providing a detector system and generating said detector system to detect said transmitted optical signal and provide said pleth signal reflective of said detected optical signal; and

providing a processor and operating said processor to obtain said pleth signal.

5. A method as set forth in Claim 4, wherein said substep of providing at least one source comprises providing two sources having different spectral contents.

6. A method as set forth in Claim 1, wherein said step of processing comprises the substep of distinguishing an effect associated with said first component and said step of using comprises the substep of monitoring said patient's breathing.

7. A method as set forth in Claim 6, wherein said substep of distinguishing comprises using said pleth signal to monitor information related to both blood pressure and heart rate.

8. A method as set forth in Claim 7, wherein said blood pressure is monitored by acquiring at least a portion of the pleth signal, filtering at least one component from the acquired signal portion, and determining information regarding a variation in blood volume over time related to the first and second components.

9. A method as set forth in Claim 7, wherein said heart rate is monitored by acquiring at least a pulsatile portion of the pleth signal and determining information regarding a variation in heart rate over time related to the first and second components.

10. A method as set forth in Claim 6, wherein said substep of distinguishing comprises determining first information related to a first signal defined by variations in blood pressure over time, determining second information related to a second signal defined by variations in heart rate over time, and using said first information and said second information to obtain third information related to a phase difference between said first signal and said second signal.

11. A method as set forth in Claim 10, wherein said substep of distinguishing further comprises using said identified phase difference to analyze said pleth signal so as to obtain information related to said first component.

12. A method as set forth in Claim 6, wherein said substep of distinguishing comprises determining first information related to a first signal defined by variations in blood pressure over time, determining second information related to a second signal defined by variations in heart rate over time, and using said first information and said second information to obtain third information related to a difference in waveform between said first signal and said second signal.

13. A method as set forth in Claim 6, wherein said substep of monitoring comprises measuring said patient's respiration rate.

14. A method for use in monitoring a patient's breathing comprising the steps of:

transmitting an optical signal relative to said patient such that said signal interacts with blood of said patient;

operating a detector system to detect said transmitted optical signal and provide a photoplethysmographic ("pleth") signal reflective of said detected optical signal, where said pleth signal includes at least a first component associated with the operation of the patient's respiratory system and a second component associated with the patient's autonomic nervous system;

processing said pleth signal to distinguish an effect associated with the said first component from effects associated with said second component; and

using said distinguished effects to monitor said patient's breathing.

15. A method as set forth in Claim 14, wherein said first component relates to the patient's respiratory sinus arrhythmia.

16. A method as set forth in Claim 14, wherein said second component relates to a Mayer Wave of said patient.

17. A method as set forth in Claim 14, wherein said step of transmitting comprises operating one or more sources to provide a first channel of said signal having a first spectral content and a second channel of said optical signal having a second spectral content different from said first spectral content.

18. A method as set forth in Claim 14, wherein said step of distinguishing comprises using said pleth signal to monitor information related to one of blood pressure and heart rate.

19. A method as set forth in Claim 18, wherein said blood pressure is monitored by acquiring at least a portion of the pleth signal, filtering at least one component from the acquired signal portion and determining information regarding a variation in blood volume over time related to the first and second components.

20. A method as set forth in Claim 18, wherein said heart rate is monitored by acquiring at least a pulsatile portion of the pleth signal and determining information regarding a variation in heart rate over time related to the first and second components.

21. A method as set forth in Claim 14, wherein said step of distinguishing comprises determining first information related to a first signal defined by variations in blood pressure over time, determining second information related to a second signal defined by variations in heart rate over time, and using said first information and said second information to obtain third information related to a phase difference between said first signal and said second signal.

22. A method as set forth in Claim 21, wherein said step of distinguishing further comprises using said identified phase difference to analyze said pleth signal so as to obtain information related to said first component.

23. A method as set forth in Claim 14, wherein said substep of distinguishing comprises determining first information related to a first signal defined by variations in blood pressure over time, determining second information related to a second signal defined by variations in heart rate over time, and using said first information and said second information to obtain third information related to a difference in waveform between said first signal and said second signal.

24. A method as set forth in Claim 14, wherein said substep of monitoring comprises measuring said patient's respiration rate.

25. An apparatus for use in monitoring a patient's breathing, comprising:

a port for receiving a photoplethysmographic ("pleth") signal that is modulated based on interaction of a transmitted optical signal with blood of said patient, wherein said pleth signal includes at least a first component associated with the operation of the patient's respiratory system and a second component associated with the patient's autonomic nervous system; and

a processor operated for processing the pleth signal to distinguish an effect associated with one of said first and second components from an effect associated with the other of said component and for using said distinguished effect to monitor said physiological parameter.

26. An apparatus as set forth in Claim 25, further comprising at least one source for transmitting an optical signal relative to said patient such that said signal interacts with said blood of said patient; and

a detector system for detecting said transmittal optical signal and providing said pleth signal such that said pleth signal is reflective of said detective optical signal.

27. An apparatus as set forth in Claim 26, wherein said detector system comprises a sensor for receiving the transmitted optical signal and providing a sensor output reflective of said received optical signal and circuitry for processing said sensor output signal to provide said pleth signal.

28. An apparatus as set forth in Claim 26, wherein said at least one source is operated for providing a first channel of said optical signal having a first spectral content and a second channel of said optical signal having a second spectral content different from said first spectral content.

29. An apparatus as set forth in Claim 25, wherein the processor is operative for distinguishing an effect associated with said first component and using said effect to monitor said patient's breathing.

30. An apparatus as set forth in Claim 25, wherein said processor is operative for distinguishing said effect by using said pleth signal to monitor information related to one of blood pressure and heart rate.

31. An apparatus as set forth in Claim 30, wherein said blood pressure is monitored by acquiring at least a portion of the pleth signal, filtering at least one component from the acquired signal portion, and determining information regarding a variation in blood volume over time related to the first and second components.

32. An apparatus as set forth in Claim 20, wherein said heart rate is monitored by acquiring at least a pulsatile portion of the pleth signal and determining information regarding a variation in heart rate over time related to the first and second components.

33. An apparatus as set forth in Claim 25, wherein said processor is operative for distinguishing said effect by determining first information related to a first signal defined by variations in blood pressure over time, determining second information related to a second signal defined by variations in heart rate over time, and using said first information and said second information to obtain third information related to a phase difference between said first signal and said second signal.

34. An apparatus as set forth in Claim 33, wherein said processor is operative for using said identified phase difference to analyze said pleth signal so as to obtain information related to said first component.

35. A method as set forth in Claim 25, wherein said substep of distinguishing comprises determining first information related to a first signal defined by variations in blood pressure over time, determining second information related to a second signal defined by variations in heart rate over time, and using said first information and said second information to obtain third information related to a difference in waveform between said first signal and said second signal.

36. An apparatus as set forth in Claim 25, wherein said processor is operative for measuring said patient's respiration rate and providing an output indicative thereof.